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BAY AREA CLEAN WATER AGENCIES



BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

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| In the Matter of the Bay Area Clean Water Agencies' Petition for Review of Action and Failure to Act by the California Regional Water Quality Control Board, San Francisco Bay Region, in Adopting Order No. R2-2008-0008, NPDES Permit No. CA0037788 and Waste Discharge Requirements for the City of Burlingame and North Bayside System Unit. | PETITION FOR REVIEW; PRELIMINARY POINTS AND AUTHORITIES IN SUPPORT OF PETITION (WATER CODE SECTIONS 13320 AND 13321) |

Petitioner Bay Area Clean Water Agencies ("BACWA"), in accordance with section 13320 of the Water Code, hereby petitions the State Water Resources Control Board ("SWRCB" or "State Board") to review Order No. R2-2008-0008 of the California Regional Water Quality Control Board, San Francisco Bay Region, ("RWQCB" or "Regional Board") reissuing National Pollution Discharge Elimination System ("NPDES") Permit No. CA0037788 and Waste Discharge Requirements for the City of Burlingame and North Bayside System Unit (the "City"). A copy of Order No. R2-2008-0008, adopted on January 30, 2008, is attached to this Petition as **Exhibit A**. The issues and a summary of the bases for the Petition follow. At such time as the full administrative record is available and any other material has been submitted, BACWA reserves the right to file a more detailed memorandum in support of the Petition and/or in reply to the Regional

Board's response.[1] In addition, many of these issues are carried over from the previous permit appeal filed by BACWA on the City's previous permit in March of 2002 (SWRCB/OCC File No. A-1468), which is hereby consolidated with this appeal and incorporated by reference herein since it is currently being held in abeyance until March 29, 2008.

BACWA is a joint powers authority ("JPA") whose members own and operate publicly-owned treatment works ("POTWs") that discharge treated effluent to San Francisco Bay and its tributaries. Collectively, BACWA's members serve nearly 7 million people in the nine-county Bay Area, treating all domestic, commercial and a significant amount of industrial wastewater. BACWA was formed to develop a region-wide understanding of the watershed protection and enhancement needs through reliance on sound technical, scientific, environmental and economic information and to ensure that this understanding leads to long-term stewardship of the San Francisco Bay Estuary. BACWA member agencies are public agencies, governed by elected officials and managed by professionals, who are dedicated to protecting our water environment and the public health.

On November 14, 2007, BACWA submitted written comments on the tentative version of NPDES Permit No. CA0037788. For the reasons contained herein, and incorporated by reference as stated above, BACWA asserts that provisions contained in the recently issued permit for the City are improper and inappropriate. BACWA hopes that the State Board will choose to take up this petition and review the issues being raised that are vitally important to Bay Area POTWs.

**1. NAME, ADDRESS, TELEPHONE, AND EMAIL FOR PETITIONER:**

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[1] The State Board's regulations require submission of a statement of points and authorities in support of a petition (23 C.C.R. §2050(a)(7)), and this document is intended to serve as a preliminary memorandum. However, it is impossible to prepare a thorough statement or a memorandum that is entirely useful to the reviewer in the absence of the complete administrative record, which is not yet available.

In addition, all materials in connection with this Petition for Review should also be provided to BACWA's special counsel at the following address:

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**2. THE SPECIFIC ACTION OF THE REGIONAL BOARD WHICH THE STATE BOARD IS REQUESTED TO REVIEW:**

BACWA seeks review of Order No. R2-2000-0008, reissuing NPDES Permit No. CA0037788 for the City (the "Permit"). The specific requirements of the Permit that BACWA requests the State Board to review relate to the following:

A. Numeric-based effluent limits for dioxin-TEQ;

B. Daily maximum effluent limitations;

C. Compliance schedule action plans for dioxin-TEQ; and

D. Inclusion of a comprehensive schedule to minimize blending.

The State Board is also requested to review the Regional Board's actions in adopting the Permit for compliance with due process and the California Administrative Procedures Act (Cal. Gov't Code §§11340, *et seq.*); the California Environmental Quality Act ("CEQA," Cal. Pub. Res. Code §21000, *et seq.*); [2] the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000, *et seq.*); the Clean Water Act ("CWA") (33 U.S.C. §§1251, *et seq.*) and its implementing regulations (40 C.F.R. Parts 122, 123, 130 and 131); the Water Quality Control Plan, San Francisco Bay Region (the "Basin Plan"); and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California ("SIP").

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[2] Although the Permit at II.E. discusses an exemption from CEQA under Water Code §13389, that exemption is narrow, and only exempts Chapter 3. The remaining non-exempted parts of CEQA require all Regional Boards to consider the environmental consequences of their permitting actions, and to explore feasible alternatives and mitigation measures prior to the adoption of waste discharge requirements. *See e.g.*, Cal. Pub. Res. Code §21002; 23 C.C.R. §3733 (which states that the exemption in §13389 "does not apply to the policy provisions of Chapter 1 of CEQA"). Because this issue is currently pending before the California Supreme Court by way of a petition for review, BACWA includes this issue to preserve its rights pending resolution by that Court.

**3. THE DATE ON WHICH THE REGIONAL BOARD ACTED:**

The Regional Board adopted the Permit on January 30, 2009.

**4. A STATEMENT OF THE REASONS THE ACTION WAS INAPPROPRIATE OR IMPROPER:**

**A. <u>The Regional Board Improperly Imposed Numeric Effluent Limitations for Dioxin-TEQ.</u>**

BACWA has been concerned about the imposition of numeric effluent limitations for dioxin since the California Toxics Rule ("CTR") was promulgated, notwithstanding that regulations' promise that the "rule would not impose undue or inappropriate burden on the State of California or its dischargers." 65 Fed. Reg. 31687 (May 18, 2000). BACWA was initially hopeful that the United States Environmental Protection Agency's ("USEPA") prediction that costs to meet the CTR criteria would be "unlikely to reach the high-end of the [cost] range because State authorities are likely to choose implementation options that provide some degree of flexibility or relief to the point source dischargers" was accurate; unfortunately, in practice, this has not been the case. *Id.* at 31706. The purpose of this petition is to request that the State use its presumed flexibility when issuing discharge permits where compliance with water quality criteria (whether these criteria are CTR criteria or narrative objectives) has been demonstrated to be infeasible.

The Permit being appealed by BACWA contains concentration limits for dioxin-TEQ. Similar limits were challenged by BACWA in previous administrative and court appeals. Unfortunately, some of the holdings of those previous appeals are not being upheld by the Regional Board. BACWA tried for several years to settle the outstanding petitions on Bay Area POTW permits filed since 2000 by BACWA and others, but disagreement as to legal requirements prevented consummation of a global settlement. Because these issues remain as important today as they did seven years ago, or perhaps more important since the time for final compliance with CTR criteria becomes shorter every day, BACWA continues to press for a final ruling to re-incorporate the "flexibility or relief" promised over the years.

BACWA believes that the Regional Board included interim compliance requirements and final numeric water quality-based effluent limitations ("WQBELs") for dioxin-TEQ in the Permit

that are contrary to the requirements of the CWA and state law.[3] In most cases, these numeric limitations have been demonstrated to be infeasible to meet,[4] and could result in the permitted entities having to construct expensive new treatment facilities, if technology even exists to provide such treatment. These treatment technologies far exceed the mandated treatment requirements of the CWA and will likely become unnecessary once new water quality objectives, site specific objectives, or TMDLs for this substance is in place and finally approved.[5] Such a waste of resources is not reasonable nor required (*see* Water Code §13000), and ignores the fact that control of dioxin-TEQ may instead require a "carefully conceived, agency-approved, long-term pollution control procedure for a complex environmental setting." *Communities for a Better Environment v. SWRCB*, 109 Cal.App.4th 1089, 1107 (2003). For these reasons, BACWA challenges these limits herein as being contrary to federal and state law requirements.

1) Numeric Effluent Limitations are Not Required.

The Regional Board has imposed numeric water quality-based effluent limitations ("WQBELs") for various constituents in the Permit based on 40 C.F.R. §122.44(d). *See* Permit at pgs. 8 and 9. However, as explained below, section 122.44(d) does not require the imposition of *numeric* WQBELs.

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[3] The Regional Board must ensure its actions to implement the CWA are consistent with any applicable provisions of the CWA and its implementing regulations. Cal. Water Code §13372.

[4] As defined by SWRCB Policy, "infeasible" means "not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." *See* SIP at Appendix 1-3.

[5] Courts have recognized a step-wise process in pollutant control. In *San Francisco BayKeeper v. Whitman*, 287 F.3d 764,766-767 (April 15, 2002), the Ninth Circuit Court of Appeals determined that:

> "[w]hen the NPDES system fails to adequately clean up certain rivers, streams or smaller water segments, the Act requires the use of a water-quality based approach. States are required to identify such waters, which are to be designated as 'water quality limited segments' ('WQLSs'). The states must then rank these waters in order of priority, and based on that ranking, institute more stringent pollution limits called 'total maximum daily loads' or 'TMDLs.' 33 U.S.C. §§1313(d)(1)(A), (C). TMDLs are the maximum quantity of a pollutant the water body can receive on a daily basis without violating the water quality standard. The TMDL calculations are to ensure that the cumulative impacts of multiple point source discharges are accounted for, and are evaluated in conjunction with pollution from non-point sources. States must ***then*** institute whatever additional cleanup actions are necessary, which can **include further controls on both point and nonpoint pollution sources**." (emphasis added).

Thus, the Court reasoned that the TMDL program is the tool for correcting water quality impairments when they are deemed to exist, not continued ratcheting down under the NPDES permitting program. Any other determination would render the TMDL program superfluous.

EPA regulations require that "each NPDES permit shall include the following requirements when applicable." *See* 40 C.F.R. § 122.44 (emphasis added). Subsection (d) of this section imposes "any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318 and 405 of the CWA necessary to achieve water quality standards established under Section 303 of the CWA, including State narrative criteria for water quality . . ." 40 C.F.R. § 122.44(d) (emphasis added). The regulations require the imposition of "requirements," not numeric effluent limitations. Furthermore, when numeric effluent limitations are infeasible, EPA regulations specifically authorize the use of Best Management Practices (BMPs) and other non-numeric or narrative requirements in lieu of numeric limits. 40 C.F.R. §122.44(k)(3); *see also* SWRCB Order No. WQ 2003-12 at pg. 9. Alternatively, the Regional Board could have styled this Permit after recent permits in the Central Valley Region, which have imposed final numeric limits, but stated that these limits do not apply if certain actions are undertaken by the discharger. *See* Order Nos. R5-2007-0036 and R5-2007-0039. This approach, which was not vetoed by USEPA, takes a creative approach to dealing with infeasible final limits without the necessity of compliance schedules.

The California Court of Appeal in the *Tesoro* case specifically ruled on this issue and stated that numeric limits are not required, and that, where infeasibility is demonstrated, numeric limits can be replaced with non-numeric requirements. *See Communities for a Better Environment v. SWRCB*, 109 Cal.App.4th at 1103-1105; *see accord In the Matter of the Petition of Citizens for a Better Environment, Save San Francisco Bay Association, and Santa Clara Audubon Society*, SWRCB Order No. WQ 91-03 (May 16, 1991). This appellate decision is binding on the State Board as a party to that case and must be followed in the case of this Permit.

By including final numeric effluent limitations in lieu of non-numeric or narrative requirements where numeric limits have been demonstrated to be infeasible, the Regional Board exceeded federal law requirements. If the Regional Board chooses to exceed federal law requirements, then it must comply with state law requirements. *City of Burbank, et al v. SWRCB, et al.*, 35 Cal. 4th 613, 627-628 (2005). However, the Regional Board failed to comply with the requirements of Water Code §13263(a), which requires consideration of several factors including

those contained in Water Code §13241 when adopting numeric effluent limitations more stringent than required by federal law into this Permit.

Thus, the State Board should remand the Permit to the Regional Board and direct the Regional Board to comply with the provisions of 40 C.F.R. §122.44(k)(3), by removing the numeric concentration-based effluent limits for dioxin-TEQ where compliance with such limits has been demonstrated to be infeasible, and replace these numeric limits with narrative requirements (source control, best management practices, etc.) in lieu of the numeric limits.[6]

2) Dioxin-TEQ Limits

The Permit contains the following effluent limitations for dioxin-TEQ:

| AMEL (µg/L) | MDEL (µg/L) | Effective Date |
|---|---|---|
| $1.4 \times 10^{-8}$ | $2.8 \times 10^{-8}$ | 3/31/2018 |

The CTR did not promulgate numeric water quality criteria for dioxin-TEQ, only for 2,3,7,8-tetrachlorodibenzo-p-dioxin ("2,3,7,8-TCDD"). In addition, no aquatic life criteria were promulgated in the CTR of the Basin Plan for dioxin-TEQ. Only a human-health criteria for municipal ("Water & Organisms"), and non-municipal drinking water supply waters (*e.g.*, "Organisms Only") were set at 0.000000013 and 0.000000014 µg/L, respectively, based on a carcinogenicity risk of $1x10^{-6}$. 40 C.F.R. §131.38(b)(1)(#16). These figures are based on an assumed exposure pathway of consumption of 6.5 grams per day of organisms from the Bay that are contaminated at a level equal to the criteria concentration, but multiplied by a "bioconcentration factor." 65 Fed. Reg. 31693 (May 18, 2000). This amount can be consumed over a lifetime (70 years) without expecting an adverse effect. *Id.* However, current detection technologies cannot measure to these levels.

The Permit did not show a demonstrated reasonable potential for 2,3,7,8-TCDD. *See* Permit at pg. F-22. However, the same table containing the reasonable potential analysis ("RPA") shows reasonable potential ("RP") for dioxin-TEQ, even though no adopted water quality criteria

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[6] Such an action would negate the need for compliance schedules as well since the City would presumably be able to immediately comply with narrative requirements for the constituents at issue.

or objective exists for dioxin-TEQ upon which a RPA could be performed.[7] The Regional Board's action in finding reasonable potential in the absence of applicable numeric water quality criteria was unreasonable, in violation of Water Code §13000, and 40 C.F.R. §122.44(d).

The number used in the RPA was exactly the same as the promulgated criterion for 2,3,7,8-TCDD. The Permit provides:

> "The CTR establishes a numeric human health WQO of 0.014 picogram per liter (pg/L) for 2,3,7,8-TCDD based on consumption of aquatic organisms. The preamble of the CTR states that California NPDES permits should use toxicity equivalents (TEQs) where dioxin-like compounds have a reasonable potential with respect to narrative criteria. In USEPA's National Recommended WQOs, December 2002, USEPA published the 1998 World Health Organization Toxicity Equivalent Factor (TEF) scheme.[8]"

*See* Permit at pg. F-32. Given that 9 years have passed since the TEFs were first adopted by the WHO, it is unreasonable for the Regional Board to continue to use a broad narrative objective and not adopt numeric objectives and an implementation plan through a formal rulemaking process as required by Water Code §13241 and §13242, and the triennial review process required by CWA section 303, 33 U.S.C. §1313(c) and (e). Moreover, the use of a narrative objective indefinitely to skirt state law requirements also ignores the congressional mandate that water quality standards criteria "shall be specific numeric criteria for such toxic pollutants." 33 U.S.C. §1313(c)(2)(B)(emphasis added).

a) The Regional Board Improperly Utilized the Basin Plan's Narrative Objective for Bioaccumulation to Justify the Imposition of a Dioxin-TEQ Limit.

In adopting a numeric effluent limitation for dioxin-TEQ, the Regional Board attempted to justify its actions by claiming that the applicable water quality objectives specified in the Basin Plan

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[7] It should be noted that this is contrary to the RPA for other constituents where the Permit states "No Criteria" in the table instead of inserting a non-promulgated criteria. *See* Permit at pg. F-22-25.

[8] The "translated" dioxin-TEQ objective of 0.014 pg/L mirrors the dioxin-TEQ objective in the State Board's 1991 Enclosed Bays and Estuaries Plan ("EBEP"), which was invalidated in 1994 by the Sacramento County Superior Court due to the State Board's failure to consider economics and other factors under Cal. Water Code Section 13241, failure to comply with CEQA, and failure to comply with the Administrative Procedures Act ("APA"). *See Water Quality Control Cases*, Judicial Council Coordination Proceeding No. JC2610, Statement of Decision (Sacramento County Superior Court, Mar. 23, 1994). Following the Court decision, the State Board rescinded the plan, including the dioxin-TEQ objective of 0.014 pg/L. Thus, this invalidated and later rescinded dioxin-TEQ objective should not be used.

require limits to protect against unsafe levels of dioxin in the fatty tissue of fish and other organisms. *See* Permit at pg. F-31. The Basin Plan contains no numeric objectives specifically set to define acceptable levels of these constituents in fish tissue or sediment, and the CTR only set numeric criteria for 2,3,7,8-TCDD, not for all the congeners of dioxins. Thus, the Regional Board improperly relied upon the Basin Plan's narrative objective for Bioaccumulation to justify limits for dioxin-TEQ.

In addition, the Regional Board improperly lumped together all of the congeners of dioxin and furans. Had the RPA been done on each individual congener, most if not all would not show reasonable potential because of the varying TEF for each. *See* Permit at pg. F-31. However, pooling all of the congeners together creates an unnecessary finding of reasonable potential for all congeners. The Regional Board's inclusion of an effluent limit for dioxin-TEQ based on all of the congeners of dioxins and furans improperly ignores that the congeners do not create reasonable potential. Imposition of limits on congeners without reasonable potential violates the specific mandates of the Basin Plan and federal regulations.[9]

A review of the Bioaccumulation objective demonstrates that this objective does not provide authorization for the numeric limits imposed in this instance. The Bioaccumulation objective found on page 3-2 of the Basin Plan provides:

> Many pollutants can accumulate on particles, in sediment, or bioaccumulate in fish or other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered. (emphasis added)

Courts have acknowledged that the presence of dioxin may be beyond the Discharger's control. *See, e.g., Communities for a Better Environment*, 109 Cal.App.4th at 1096 ("Dioxins are not produced intentionally. They are formed as undesired byproducts of combustion and the manufacture and use of certain chlorinated chemical compounds. They exist in the environment

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[9] The insertion of limits without reasonable potential is contrary to permit findings that state "WQBELs are not included in this Order for constituents that do not demonstrate reasonable potential." *See* Permit at pg. F-25, para. C.3.e(2).

worldwide, particularly in air, water, soils, and sediments. They enter the atmosphere through aerial emissions and widely disperse through a number of processes, including erosion, runoff, and volatilization from land or water. For example, automobile exhaust is a common source of dioxins.") Therefore, the minimal contribution of dioxin-TEQ by the City's POTW is not a "controllable water quality factor" that is causing a "detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life," and imposing a limit for dioxin-TEQ is not necessary nor based upon the findings and evidence. Therefore, control of all of these sources is not within the jurisdiction of the City.

Additionally, a numeric effluent limitation can only be imposed through a narrative water quality objective if the narrative objective contains an appropriate mechanism to "translate" the narrative requirement (*i.e.*, to translate a narrative objective into a concentration or mass effluent limitation).[10] In order for a numeric limit derived from a narrative objective to be appropriate, the derivation of the numeric limit must be transparent. A clear explanation of the translation from the narrative water quality objective must be set forth in the NPDES permit.[11] *See* 40 C.F.R.

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[10] Federal regulations mandate that "[w]here a State adopts narrative criteria for toxic pollutants to protect designated uses, the State must provide information identifying the method by which the State intends to regulate point source dischargers of toxic pollutants on water quality limited segments based on such narrative criteria. Such information may be included as part of the standards . . . ." 40 C.F.R. §131.11(a)(2). Since the Basin Plan's narrative objective for Bioaccumulation does not contain an appropriate translation mechanism, the only conclusion can be that subjective, arbitrary, or wholly inapplicable WQBELs for dioxin-TEQ have been imposed in the Permit. The rationale in the *EBMUD* Order, SWRCB Order No. WQ 2002-0012 at pgs. 6-7 does not apply in this case, since the dioxin-TEQ limits are final WQBELs and were not adopted in conformance with federal regulations as there are no 304(a) guidance criteria for dioxin-TEQ. *See* http://www.epa.gov/waterscience/criteria/wqcriteria.html.

[11] In EPA's official guidance documents, EPA explains at length the process the State must go through to implement an adequate translator mechanism. *See* EPA Water Quality Standards Handbook at 3-13 to 3-26 (1994). Among other things, EPA provides that a State's translator procedure for narrative criteria should specifically describe:

- specific, scientifically defensible methods by which the state will implement its narrative toxicity standard for all priority pollutants;
- how these methods will be integrated into the State's priority pollutant control program;
- methods the State will use to identify those pollutants to be regulated in a specific discharge;
- an incremental cancer risk for carcinogens;
- methods for identifying compliance thresholds in permits where calculated limits are below detection;
- methods for selecting appropriate hardness, pH, and temperature variables for criteria expressed as functions;
- methods or policies controlling the size and in-zone quality of mixing zones;
- design flows to be used in translating chemical-specific numeric criteria for aquatic life and human health into permit limits; and
- other methods and information needed to apply standards on a case-by-case basis.

*Id.* at 3-25; *see also* EPA, TSD for Water Quality-Based Toxics Control at 30-31(1991).

§124.8(b)(4); *Topanga Ass'n for a Scenic Community v. County of Los Angeles*, 11 Cal. 3d 506, 515 (1974); *California Edison v. SWRCB*, 116 Cal. App. 3d 751, 761 (1981); *see also In re Petition of the Pinole-Hercules Water Pollution Control Plant and County of San Francisco*, State Board Order No. WQ-95-4 at 10 (Sept. 21, 1995). The failure by the Regional Board to clearly enunciate the translation from a narrative objective to a numeric limit in the Findings or Fact Sheet of the Permit was an abuse of discretion.

b) Meeting the Dioxin Concentration Limit is Not Feasible

As stated above, dioxins enter the environment from a variety of sources, primarily combustion sources. *See Communities for a Better Environment*, 109 Cal. App. 4th at 1096 ("automobile exhaust is a common source of dioxins.") Further, the Regional Board has concurred with the City that compliance with the dioxin-TEQ limits is infeasible. *See* Permit at pg. F-32. For these reasons, numeric effluent limitations were not required.[12]

The Regional Board's assertion that other strategies, including potential mass offsets (see Permit at pg. 23), could address the impairment ignores two basic points. First, the Regional Board has historically never agreed that there is an "impairment" for dioxin in the Bay.[13] In addition, mass offsets will not address the ability to meet a *concentration* limit. Even the new Regional Board member, Dr. Terry Young, has previously questioned how an offset can be done for concentration.

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[12] The Regional Board should have done what it did in the Vallejo permit, Order No. R2-2006-0056, which was to state: "Due to the limited monitoring data, no dioxin limits (final or interim) are established. The final limits for dioxin TEQ will be based on the WLA assigned to the Discharger in the TMDL. This Order requires additional dioxin monitoring to complement the Clean Estuary Partnership's special dioxin project, consisting of impairment, assessment, and a conceptual model for dioxin loading into the Bay. The permit will be reopened, as appropriate, to include interim dioxin limitations when additional data become available." Order No. R2-2006-0056 at pg. F-24.

[13] *See* Letter and attachments from Loretta Barsamian, RWQCB to Alexis Strauss, EPA Region IX (Jul 14, 1998)("we believe the data do not support any other additions to the list at this time. This is particularly true in the case of dioxin.")(incorporated herein by reference). The existing 303(d) listings for dioxins and furans in San Francisco Bay were made by USEPA Region IX in a letter dated May 12, 1999. These listings were made as changes (additions) to the 1998 303(d) list, which was originally adopted by the SWRCB, based on a 1994 study (San Francisco Regional Board/ SWRCB/ California Department of Fish and Game, *Contaminant Levels in Fish Tissue from San Francisco Bay*, December 1994). EPA based its determination on an OEHHA fish advisory, and by finding impairment of the Commercial and Sportfishing (COMM) use due to human consumption of fish. However, EPA's finding ignored other important information such as later studies and a 1998 national dioxin health risk study that showed that dioxin levels and dioxin consumption rates of other protein sources (e.g., beef, dairy products) is higher than through fish consumption. *See* Statements by Dr. William Farland, USEPA National Center for Environmental Assessment, 1998. More recent studies have also shown the benefits of eating fish notwithstanding health advisories for mercury or dioxins. Therefore, an advisory to avoid fish consumption may actually increase the health risk to Bay area residents.

Offset programs for concentration-based limits have not been demonstrated to be feasible. Further, no state policy for offsets exists, so the feasibility of such an approach has not been determined. For these reasons, the numeric limits for dioxin-TEQ imposed in the Permit represent an abuse of discretion.

**B. The Regional Board Improperly Included Daily Maximum Effluent Limitations.**

Where effluent limitations are authorized, federal regulations provide that for discharges from POTWs, all permit effluent limits shall, unless impracticable, be stated as average weekly and average monthly discharge limitations.[14] 40 C.F.R. § 122.45(d)(2). The Permit contains several unsupported daily maximum limits, including, among others, the limit for dioxin-TEQ. *See* Permit at pg. 9.

In order to justify the inclusion of these daily limits, the Regional Board first cited to the language of 40 C.F.R. §122.45(d)(1), which states that: "For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards shall unless impracticable be stated as maximum daily and average monthly discharge limitations for all discharges other than publicly owned treatment works." *See* Permit at pgs. F-17-18, para. C.1.b.(1). This citation ignores that these discharges *are* from a publicly owned treatment work, and the rule for such a facility is that "average weekly and average monthly discharge limitations [apply] for POTWs." 40 C.F.R. §122.45(d)(2). Therefore, this first justification for daily limits fails.

The State Implementation Policy (SIP) did not change the federal requirements. In enacting the SIP, the State Board may have attempted to modify the federal regulatory prohibition on the use of daily maximum limits for POTWs by stating: "For this method only [referring to limits for aquatic life protection] maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations." SIP at 8, §1.4. However, prior to authorizing the use of daily maximum limitations in POTW permits for compliance with aquatic

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[14] Federal regulations also provide that discharges from all dischargers other than POTWs, effluent limitations shall be stated as maximum daily and average monthly discharge limitations. 40 C.F.R. §122.45(d)(1).

life criteria in the SIP, the State Board did not make the required demonstration that the imposition of average weekly and average monthly effluent limitations for the protection of aquatic life was "impracticable" per the requirements of 40 C.F.R. §122.45(d). Therefore, the State Board's authorization of daily maximum limitations for compliance with aquatic life criteria does not meet federal requirements or California Water Code Chapter 5.5 requirements for consistency with federal requirements. As such, the Regional Board should remove all daily maximum interim and final effluent limitations based on aquatic life criteria.

Further, the State Board did not include in the SIP the same language purportedly allowing for the inclusion of daily maximum limitations in POTW permits for effluent limitations based upon technological requirements (for conventional pollutants) or upon human health criteria. Therefore, even if the SIP provisions pertaining to maximum daily limits for aquatic life criteria were valid, 40 C.F.R. §122.45(d) requires the Regional Board to remove all daily maximum interim and final effluent limitations based on human health criteria or technological requirements.

The Permit never specifies why monthly and weekly average limits are impracticable. The Permit merely states that "MDELs are used in this Order to protect against acute water quality effects. The MDELs are necessary for preventing fish kills or mortality to aquatic organisms." Permit at pg. F-18, para. C.1.c. These statements do not constitute an impracticability analysis, and are inadequate to justify daily limits as there is no evidence to support such generic findings.

Furthermore, at most, these justifications would address only limits based on acute aquatic life criteria. However, the Regional Board did not include limits based on acute aquatic life protection, rather, the limits for dioxin-TEQ are based on long-term chronic exposure. *See In the Matter of the Own Motion Review of the City of Woodland,* SWRCB Order No. WQ 2004-0010 (holding that "implementing the limits as instantaneous maximums appears to be incorrect because the criteria guidance value . . . is intended to protect against chronic effects.")

Therefore, the Regional Board's inclusion of daily maximum effluent limitations in the Permit, without a specific, pollutant-by-pollutant impracticability analysis, violated 40 C.F.R. §122.45(d)(2) and Water Code Chapter 5.5. By violating federal and state law, the Regional Board proceeded without, or in excess of, its jurisdiction and has committed a prejudicial abuse of

discretion by not proceeding in a manner required by law. For these reasons, the State Board should direct the Regional Board to remove the daily maximum effluent limitations not properly analyzed for impracticability. *See accord* SWRCB Order No. 2002-0012 at pg. 20-21 (July 18, 2002)("the Regional Board must include a finding in the permit on remand explaining the impracticability of weekly average limits."); SWRCB Order No. 2002-0015 at pg. 56; *City of Woodland v. Regional Water Quality Control Board for the Central Valley Region, and SWRCB,* Case No. RG04-188200, Statement of Decision at pg. 20.

**C. The Regional Board Improperly Imposed A Compliance Schedule Action Plan for Dioxin-TEQ in the Permit which is Overly Stringent.**

BACWA is concerned that having stringent schedules contained in the Permit that will eventually require the construction of capital facilities when BACWA has repeatedly been told that building additional treatment is not the expected direction of the Bay Area water quality program. BACWA was under the impression that the direction was to pursue regulatory alternatives, such as TMDLs, site specific objectives, and pollution prevention (as described in the implementation plan for the mercury TMDL). The Permit veers way off of this intended direction.

Also, this Permit contains a compliance schedule for a constituent that cannot be source controlled, or for which wastewater treatment plant effluents have been identified as non-significant sources. *See* Permit at pg. 23. Additionally, dioxin-TEQ is already being addressed through an alternative regulatory strategy that will appropriately resolve beneficial use concerns for the San Francisco Bay. The compliance schedule in the Permit is overly burdensome for dioxin-TEQ, as specified below:

The Permit's compliance schedule for dioxin-TEQ is overly burdensome. The dioxin congeners found in fish tissue samples, which form the basis for the dioxin 303(d) listing, are different than the congeners detected in publicly-owner treatment works. Given that the sources of dioxin are uncontrollable by municipal wastewater treatment plants and are primarily introduced through air deposition, the compliance requirements for dioxin reduction in the effluent will have little, if any, environmental benefit to reduce the concentrations of dioxin congeners found in fish tissue. Thus, a *de minimus* exception should be granted in this case at least until the TMDL is

finalized. *See Ober v. USEPA*, 243 F.3d 1190, 1195 (9th Cir. 2001)("de minimis exception is allowed for regulation yielding trivial gain.").

For these reasons, the action plans in the Permit should be revised to remove all activities related to installation of capital improvements. In addition, any pollution prevention activities should be identical to resolutions or orders already adopted by the Regional Board for specific constituents. No new or different activities should be required for dioxin-TEQ.

**F. The Regional Board Improperly Imposed a Schedule with Enforceable Deadlines to Minimize Blending.**

Currently, the City's exercise of the well established practice of blending during peak wet weather flows ensures compliance with the CWA. This practice has never resulted in a violation of the stringent effluent limitations contained in previous NPDES permits, and nothing suggests that future violations may occur. In order to comply with the compliance schedule imposed by the Regional Board to minimize blending, the City is required to complete improvements to the facility pursuant to deadlines in a workplan to be submitted to the Regional Board for approval by April 10, 2009. *See* Permit at pg. 22. By including a compliance schedule with enforceable deadlines to minimize blending, the Regional Board violated federal and state law.

1) Inclusion of a Compliance Schedule with Enforceable Deadlines to Minimize Blending in the Permit Violates Applicable Federal Law.

The inclusion of a compliance schedule to minimize blending is contrary to federal and state law and not based on evidence in the record. The Regional Board incorrectly determined that the City's blending practice constituted an illegal "bypass" in violation of 40 C.F.R. §122.41(m). *See* Permit at pg. F-13, para. A.4. The requirements of 40 C.F.R. §122.41(m) do not apply where the bypass does not cause effluent limitations to be exceeded as long as a POTW could show that such bypass is "for essential maintenance to assure efficient operation." *See* 40 C.F.R. §122.41(m)(2). This regulation does not prohibit operation of treatment facilities in a manner consistent with the design of a facility and does not prohibit blending which is consistent with the design of a facility. *See* 40 C.F.R. §122.41(m)(2).

On occasions, during peak wet weather flows, the City blends primary treated effluent with secondary treated effluent prior to disinfection and discharge to the lower San Francisco Bay. *See* Permit at pg. 2, para.3. This well established practice is essential to assure efficient operation of the City's treatment facility during peak wet weather. Also, in all previous permits adopted by the Regional Board, the Regional Board staff recognized that the practice of blending contemplated by the City's engineering design was reasonable and lawful. Thus, the Regional Board is acting contrary to 40 C.F.R. §122.41(m).

2) Inclusion of a Compliance Schedule with Enforceable Deadlines to Minimize Blending in the Permit Violates Applicable State Law.

Water Code section 13360 prohibits the State from dictating the design of treatment facilities or the particular manner in which compliance is achieved. Water Code §13360 ("No waste discharge requirement or other order of a regional board or the state board or decree of a court … shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, or decree.")

By requirement that the City minimize blending by imposing a compliance schedule in the Permit that dictates a re-design of the treatment facility, the Regional Board violated Water Code §13360. *See* Permit at pg. 22.

Furthermore, since minimizing blending is not dictated by federal law, the Regional Board failed to comply with the requirements of Cal. Water Code §13263(a), which requires consideration of several factors including those contained in Cal. Water Code §13241 when adopting compliance schedules for minimizing blending into this Permit. Some of the factors the Regional Board failed to take into consideration when imposing this requirement include economic effects of the requirement, the level of water quality that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area, and the need for developing housing within the region. *See* Cal. Water Code §13241.

3) The Regional Board should not be Imposing a Compliance Schedule with Enforceable Deadlines to Minimize Blending Before Clear Guidance Is Issued from the EPA.

The inclusion of a compliance schedule to minimize blending is a result of misinterpretation and misapplication of evolving guidance from U.S. EPA on the circumstances under which blending is appropriate. In particular, correspondence from the U.S. EPA to members of Congress in March of 2001, presenting the "current thinking" of U.S. EPA, indicated that blending is appropriate and permissible where certain conditions are satisfied. Blending at the City meets all of the specific criteria, and there is uncontroverted testimony in the record that the design of the project is based on generally accepted engineering practices and criteria.

Also, the EPA and the Office of Management and Budget are still reviewing the current version of a national blending policy. Notably, the EPA has not yet issued a final draft due to the controversy surrounding the prohibition on blending. Furthermore, BACWA does not believe that it is national or state policy that a No Feasible Alternatives Analysis (NFAA) be followed up by an enforcement schedule which may carry penalties. First, the regulation cited, 40 C.F.R. §122.41(m), to require the development of a NFAA, does not require that an enforceable schedule be then placed in the Permit. Second, requirements in this region should not be developed on a permit by permit bases, in advance of how these significant issues are settled nationally.

Furthermore, the City may incur substantial immediate and irreparable harm if it is required to immediately comply with the Permit's compliance schedule to minimize blending. The Permit established an enforceable compliance schedule requiring the City to design and construct facilities to minimize blending. *See* Permit at 22. Public expenditures for such design and construction may represent a waste of scarce public funds because there are no identified water quality benefits or standards associated with minimizing blending.

**5. THE MANNER IN WHICH THE PETITIONER IS AGGRIEVED:**

The Permit includes requirements, challenged herein, which are unreasonable, contrary to legal requirements, and not supported by the findings and evidence in the administrative record. The limits for dioxin-TEQ are unreasonable because the City has extremely limited control over influent sources. Further, these requirements could ultimately impose considerable costs on the agency's ratepayers for potential mandatory and discretionary penalties imposed for non-compliance with the challenged requirements, or for construction of additional treatment units to

meet limits imposed without a demonstration that such requirements would result in material improvements in the water quality of the Bay. In fact, such expenditures could have a negative impact on water quality, by diverting limited public funds away from other projects that might have a higher potential for improvements in water quality.

BACWA is aggrieved by unreasonable permit prohibitions that may put the City in non-compliance with the Permit. BACWA's membership will be aggrieved by any permit provisions that cannot now or in the future be met as federal and state law provide harsh sanctions for non-compliance with effluent limitations in a wastewater discharge permit. For example, California Water Code § 13385 prescribes mandatory minimum penalties of $3,000 per day per violation, with narrow exceptions. With this statute, the State has no latitude to excuse noncompliance with the Permit.

Other statutory provisions, while not setting mandatory minimum penalties, create even greater exposure for BACWA's members. The CWA authorizes civil penalties of up to $32,500 per day per violation, 33 U.S.C. § 1319(d), and also authorizes criminal penalties, including the incarceration of public officials, for knowing or negligent permit violations. 33 U.S.C §1319(c); *see U.S. v. Weitzenhoff*, 35 F.3d 1275 (9th Cir. 1994) (managers of treatment plant convicted of permit violations). In addition to enforcement by administrative agencies, private parties can seek civil penalties pursuant to the "citizen suit" provisions of the CWA. *See* 33 U.S.C. § 1365.

Likewise, California's Porter-Cologne Water Quality Act contains stiff penalties for violation of effluent limitations in a wastewater discharge permit. *See* Cal. Water Code §§ 13385 and 13387. This act authorizes a penalty of up to $25,000 per day per violation, with additional liability not to exceed $25 per gallon if the discharge is to navigable waters of the United States and either is "not susceptible to cleanup or is not cleaned up." Cal. Water Code § 13385(b)(1)-(2), (d). The act also establishes criminal liability for intentional or negligent violation of effluent limitations contained within a permit. Cal. Water Code § 13387(a)-(d).

Furthermore, the application of illegal or unreasonable effluent limitations in violation of federal and state law causes substantial harm to BACWA and its members that have a vested interest in complying with the law. This appeal furthers one of BACWA's express purposes, which

is "to represent the interests of the Agency or one or more Member Agencies, including, without limiting the generality of the foregoing, by participating in the appeal of or court challenge of the issuance or denial of issuance of NPDES permits or the adoption or amendment of water quality orders, regulations or decisions."

**6. THE SPECIFIC ACTION BY THE STATE OR REGIONAL BOARD WHICH PETITIONER REQUESTS:**

Petitioner seeks an Order by the State Board that will remand Order No. R2-2008-0008 to the Regional Board for revisions and will direct the Regional Board to:

A. Remove the numeric effluent limits for dioxin-TEQ;

B. Remove daily maximum effluent limitations where the Regional Board failed to conduct an impracticability analysis;

C. Revise the compliance schedule action plan for dioxin-TEQ to (1) remove all activities related to installation of capital improvements and (2) ensure that any pollution prevention activities are identical to resolutions or orders already adopted by the Regional Water Board; and

D. Remove the compliance schedule for minimizing blending.

**7. A STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT OF LEGAL ISSUES RAISED IN THE PETITION:**

BACWA's preliminary statement of points and authorities is set forth in Section 4 above. Nevertheless, BACWA reserves the right to supplement this statement upon receipt and review of the administrative record.

In Section 4, BACWA asserts that provisions of the Permit are inconsistent with the law and otherwise inappropriate for various reasons, including: failure to comply with the Porter-Cologne Water Quality Control Act (Cal. Water Code, §§ 13000 *et seq.*); failure to comply with the CEQA (Cal. Public Resources Code, §§ 21000 *et seq.*, and 23 C.C.R. § 3733); failure to comply with the APA (Cal. Gov't Code, §§ 11340 *et seq.*); inconsistency with the Water Quality Control Plan, San Francisco Bay Region (Basin Plan); inconsistency with the Clean Water Act (33 U.S.C. §§ 1251 *et seq.*) and its implementing regulations (40 C.F.R. Parts 122, 123, 130, and 131); inconsistency with

EPA guidance (EPA's Water Quality Standards Handbook (1994, 3d edition)); absence of findings supporting the provisions of the Order; Regional Board findings that are not supported by the evidence; and other grounds that may be or have been asserted by Petitioner.

**8. A STATEMENT THAT THE PETITION HAS BEEN SENT TO THE REGIONAL BOARD AND TO THE DISCHARGER:**

A true and correct copy of this Petition was mailed by First Class mail on February 29, 2008, to the Discharger, and to the Regional Board at the following address:

Bruce Wolfe, Executive Officer
California Regional Water Quality Control Board,
San Francisco Region
1515 Clay Street, Suite 1400
Oakland, California 94612

**9. A STATEMENT THAT THE SUBSTANTIVE ISSUES AND OBJECTIONS RAISED IN THE PETITION WERE RAISED BEFORE THE REGIONAL BOARD, OR AN EXPLANATION WHY NOT:**

The substantive issues and objections were raised before the Regional Board either in this permitting action, or in previous permitting actions that were appealed to the State Board and remain in abeyance. The issues raised in the previous Petition that remain at issue were reiterated and incorporated into this Petition.

**10. PETITIONER'S REQUEST FOR ABEYANCE:**

BACWA requests that the State Board place its Petition for Review in abeyance pursuant to 23 C.C.R. §2050.5(d) to allow time for BACWA to attempt to resolve its concerns with the Regional Board informally.

DATED: February 29, 2008

Respectfully submitted,

Adam Friedman
DOWNEY BRAND LLP
BACWA Special Counsel

EXHIBIT A

Linda S. Adams
*Secretary for*
*Environmental Protection*

# California Regional Water Quality Control Board

**San Francisco Bay Region**

1515 Clay Street, Suite 1400
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Arnold Schwarzenegger
*Governor*

## ORDER NO. R2-2008-0008

## NPDES NO. CA0037788

The following Discharger is authorized to discharge in accordance with conditions set forth in this Order:

### Discharger Information

| | |
|---|---|
| **Discharger** | City of Burlingame and North Bayside System Unit |
| **Name of Facility** | City of Burlingame Wastewater Treatment Facility |
| **Facility Address** | 1103 Airport Boulevard |
| | Burlingame, CA 94010 |
| | San Mateo County |

The Discharge by the City of Burlingame Wastewater Treatment Facility (Facility) from the discharge point identified below is subject to waste discharge requirements as set forth in this Order.

### Discharge Location

| Discharge Points | Effluent Description | Discharge Point Latitude | Discharge Point Longitude | Receiving Water |
|---|---|---|---|---|
| E-002 | Secondary treated wastewater | 37°, 39', 55" N | 122°, 21', 41" W | Lower San Francisco Bay |

### Administrative Information

| | |
|---|---|
| This Order was adopted by the Regional Water Board on: | **January 30, 2008** |
| This Order shall become effective on: | **April 1, 2008** |
| This Order shall expire on: | **March 31, 2013** |
| The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than: | **180 days prior to the Order expiration date** |
| The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge. | |

I, Bruce H. Wolfe, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on **January 30, 2008**.

Digitally signed by Bruce Wolfe
Date: 2008.02.06 21:46:03 -08'00'

Bruce H. Wolfe, Executive Officer

## Table of Contents



## List of Tables



## List of Attachments

# I. FACILITY INFORMATION

The following Discharger is subject to the waste discharge requirements as set forth in this Order.

**Table 1. Facility Information**

| | |
|---|---|
| **Discharger** | City of Burlingame and North Bayside System Unit |
| **Name of Facility** | City of Burlingame Wastewater Treatment Facility |
| **Facility Address** | 1103 Airport Boulevard |
| | Burlingame, CA 94010 |
| | San Mateo County |
| **Facility Contact, Title, and Phone** | William Toci, Plant Manager, (650) 342-3727 |
| **Mailing Address** | 501 Primrose Road<br>Burlingame, CA 94010 |
| **Type of Facility** | Publicly Owned Treatment Works (POTW) |
| **Facility Design Flow** | 5.5 mgd (dry weather) and 16 mgd (wet weather capacity) |

# II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Water Board), finds:

**A. Background.** The City of Burlingame Wastewater Treatment Facility (Facility) and the North Bayside System Unit (NBSU) (hereinafter, the Discharger) are currently discharging under Order No. R2-2002-0027 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0037788. The NBSU is subject to the requirements of this Order because it is responsible for chlorination and dechlorination of the effluent prior to discharge to Lower San Francisco Bay.

The Discharger submitted a Report of Waste Discharge, dated May 24, 2006, and applied for renewal of its NPDES permit to discharge up to 5.5 million gallons per day (mgd) of treated wastewater from the Facility. The application was deemed complete on June 16, 2006.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

## B. Facility Description

1. The Discharger owns, and Veolia West Operating Service, Inc. operates, the Facility, which provides secondary treatment of domestic and commercial wastewater collected from the cities of Burlingame (population 30,000) and Hillsborough (6,000), and unincorporated areas of San Mateo County (1,000). The Facility has an average dry weather design flow capacity of 5.5 million gallons per day (mgd) and can treat up to 16 mgd during the wet weather flow period. A topographic map of the area around the Facility is provided as **Attachment B** of this Order.

2. The Facility is part of the NBSU, a joint powers authority that includes the cities of Burlingame, Millbrae, South San Francisco, and San Bruno, and the San Francisco International Airport.

3. The wastewater treatment process at the Facility consists of screening, grit removal, primary clarification (2 primary clarifiers), activated sludge biological treatment (4 aeration basins), secondary clarification (4 secondary clarifiers), and disinfection with sodium hypochlorite. During wet weather operations, the aeration basins and secondary clarifiers may be bypassed, with the final effluent being a blend of disinfected, primary-treated effluent and disinfected, secondary-treated effluent. Blending is done to avoid hydraulic overload of the activated sludge process and associated solids inventory washout. The Facility presently discharges an average dry weather flow of 3.56 mgd, an annual average flow of 4.3 mgd, and a maximum wet weather flow rate of 11 mgd (2004-2006 data).

4. Treated, disinfected wastewater enters the NBSU forcemain at monitoring location E-001, dechlorinated at the City of South San Francisco Water Quality Control Plant prior to discharge from the NBSU force main and outfall into Lower San Francisco Bay (E-002), a water of the State and the United States, northeast of Point San Bruno through a submerged diffuser about 5,300 feet offshore at a depth of 20 feet below mean lower low water (37 degrees, 39 minutes, 55 seconds N latitude and 122 degrees, 21 minutes, 41 seconds W longitude). The engineered maximum instantaneous outfall flow rate the Facility is allowed to discharge to the NBSU force main is 16 mgd. Effluent flows in excess of 16 mgd are diverted to a nearshore outfall; which is prohibited by this Order. Consistent with Basin Plan requirements, discharge through any outfall other than E-002 is prohibited by this Order. The location of the NBSU discharge point is shown in **Attachment B (Figure B-2)**. A flow schematic of the facility is provided as **Attachment C** of this Order.

5. Biosolids collected from the wastewater treatment process are thickened in a gravity thickener, anaerobically digested and stabilized in an anaerobic digester, and dewatered by a belt filter press. The Discharger currently generates about 665 dry metric tons per year of Class B biosolids. A portion of the dewatered biosolids is disposed of at the Potrero Hills Landfill in Suisun City, California. The Discharger contracts through its agent, Veolia West Operating Service Inc., to have the remaining dewatered biosolids hauled and land applied by SynaGro West, Inc., its contract land applier. Under the terms of that contract, SynaGro is responsible for complying with the monitoring and reporting requirements of the 40 CFR 503 regulations for the biosolids and files annual reports with USEPA Region IX.

C. **Legal Authorities.** This Order is issued pursuant to CWA Section 402 and implementing regulations adopted by the USEPA and Chapters 5.5, Division 7 of the CWC (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this Facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 Division 7 of the CWC (commencing with section 13260).

D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E, G and H are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA.

F. **Technology-based Effluent Limitations.** NPDES regulations at 40 CFR 122.44(a) require that permits include applicable technology-based requirements at a minimum and any more stringent effluent limitations necessary to meet applicable water quality standards. This Order includes technology-based effluent limitations based on Secondary Treatment Standards at 40 CFR Part 133 and Best Professional Judgment (BPJ) pursuant to 40 CFR 125.3. The Regional Water Board has considered the factors associated with these requirements when developing all effluent limitations. A detailed discussion of development of the technology-based effluent limitations development is included in the Fact Sheet (**Attachment F**).

G. **Water Quality-based Effluent Limitations.** NPDES regulations at 40 CFR 122.44(d)(1)(i) mandate that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) are established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

H. **Water Quality Control Plans**. *The Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board, USEPA, and the Office of Administrative Law, as required. The Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Because of the marine influence on receiving waters of the San Francisco Bay, total dissolved solids levels in the Bay commonly (and often significantly) exceed 3,000 mg/L and thereby meet an exception to State Water Board Resolution No. 88-63. Therefore, the MUN designation is not applicable to the Lower San Francisco Bay. Beneficial uses applicable to Lower San Francisco Bay are as follows.

**Table 2. Basin Plan Beneficial Uses of Lower San Francisco Bay**

| Discharge Point | Receiving Water Name | Beneficial Uses |
|---|---|---|
| E-002 | Lower San Francisco Bay | Industrial Service Supply (IND)<br>Navigation (NAV)<br>Water Contact Recreation (REC1)<br>Non-Contact Water Recreation (REC2)<br>Ocean, Commercial and Sport Fishing (COMM)<br>Wildlife Habitat (WILD)<br>Preservation of Rare and Endangered Species (RARE)<br>Fish Migration (MIGR)<br>Shellfish Harvesting (SHELL)<br>Estuarine Habitat (EST) |

Requirements of this Order implement the Basin Plan.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

J. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order includes a compliance schedule for dioxin-TEQ, but does not include interim effluent limitations for dioxins due to data limitations.

L. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000) (codified at 40 CFR 131.21)]. Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. **Stringency of Requirements for Individual Pollutants.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on carbonaceous biochemical oxygen demand (BOD), total suspended solids (TSS), pH, turbidity, and oil and grease. Restrictions on these pollutants are specified in federal regulations as discussed in Section III.C.5 of the Fact Sheet (**Attachment F**). Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

N. **Antidegradation Policy.** 40 CFR 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet (**Attachment F**), the permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

O. **Anti-Backsliding Requirements.** CWA Sections 402(o)(2) and 303(d)(4) and NPDES regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous Order, with some exceptions where limitations may be relaxed. All

effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

P. **Monitoring and Reporting.** 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

Q. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in **Attachment F**.

R. **Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.F and V.B of this Order are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

S. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (**Attachment F**) of this Order.

T. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (**Attachment F**) of this Order.

IT IS HEREBY ORDERED, that Order No. R2-2002-0027 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

## III. DISCHARGE PROHIBITIONS

**A.** Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.

**B.** The average dry weather flow, as measured at monitoring location E-001 described in the attached MRP (Attachment E), shall not exceed 5.5 mgd. The average dry weather flow shall be determined for compliance with this prohibition over three consecutive dry weather months each year.

**C.** Discharge of treated wastewater into Lower San Francisco Bay, at any point where it does not receive an initial dilution of at least 10:1, is prohibited.

**D.** The bypass or overflow of untreated or partially treated wastewater to waters of the United States is prohibited, except as provided for in the conditions stated in 40 CFR 122.41(m)(4) and in A.13 of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993* **(Attachment G)**.

Blended wastewater is biologically treated wastewater blended with primary treated wastewater that has been diverted around biological treatment units or advanced treatment units. Such discharges are approved (1) when the Discharger's peak wet weather influent flow volumes exceed the capacity of the secondary treatment unit(s) of 13 mgd, and (2) the discharge complies with the effluent and receiving water limitations contained in this Order, and (3) the Discharger is in compliance Provision VI.C.5.c. Furthermore, the Discharger shall operate its facility as designed and in accordance with the Operation & Maintenance Manual developed for the facility. This means that it shall optimize storage and use of equalization units, and shall fully utilize the biological treatment units and advanced treatment units, if applicable. The Discharger shall report incidents of blended effluent discharges in routine monitoring reports, and shall conduct monitoring of this discharge as specified in the attached MRP (**Attachment E**).

**E.** Any sanitary sewer overflow that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.

# IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

## A. Effluent Limitations for Conventional and Non-Conventional Pollutants at Monitoring Location E-001

The Discharger shall maintain compliance with the following effluent limitations at Monitoring Location E-001 as described in the attached MRP (**Attachment E**).

**Table 3. Effluent Limitations for Conventional and Non-Conventional Pollutants**

| Parameter | Units | Effluent Limitations | | | | |
|---|---|---|---|---|---|---|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Oil and Grease | mg/L | 10 | --- | 20 | --- | --- |
| pH [1] | standard units | --- | --- | --- | 6.0 | 9.0 |
| Total Suspended Solids (TSS) | mg/L | 30 | 45 | --- | --- | --- |
| Biochemical Oxygen Demand (BOD 5-day @ 20 Deg. C) | mg/L | 30 | 45 | --- | --- | --- |

(1) If the Discharger monitors pH continuously, pursuant to 40 CFR 401.17, the Discharger shall be in compliance with the pH limitation specified herein, provided that both of the following conditions are satisfied: (i) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (ii) no individual excursion from the range of pH values shall exceed 60 minutes.

## B. Effluent Limitations at Discharge Point E-002

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point E-002 with compliance measured at Monitoring Location E-002 as described in the attached MRP (**Attachment E**).

**Table 4. Effluent Limitations for Discharge Point E-002**

| Parameter | Units | Effluent Limitations | | | | |
|---|---|---|---|---|---|---|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Chlorine, Total Residual[1] | mg/L | --- | --- | --- | --- | 0.0 |
| Cyanide[2] | µg/L | 17 | --- | 45 | --- | --- |

(1) This requirement is defined as below the limit of detection in standard test methods, as defined in the latest edition of *Standard Methods for the Examination of Water and Wastewater*. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, sodium hypochlorite, and sodium bisulfite dosage (including a safety factor) and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Regional Water Board staff will conclude that these false positive chlorine residual exceedances are not violations of the chlorine limit. Chlorine residual compliance shall be demonstrated by monitoring the combined discharge at the NBSU common outfall.

(2) **Alternate Effluent Limits for Cyanide:**

a. If a cyanide SSO for the receiving water becomes legally effective, resulting in an adjusted saltwater chronic criterion of 2.9 µg/l (based on the assumptions in *Draft Staff Report on Proposed Site-Specific Water Quality Objectives and Effluent Limit Policy for Cyanide for San Francisco* Bay, dated November 10, 2005), upon its effective date, the following limitation shall supersede the cyanide maximum daily limitation listed in Table 4 (the rationale for this effluent limitation can be found in the Fact Sheet [**Attachment F**]). The average monthly limit shall not be affected.

MDEL of 47 µg/L

b. If a different cyanide SSO for the receiving water is adopted, the alternate WQBELs based on the SSO will be determined after the SSO effective date.

## C. Additional Effluent Limits at Monitoring Location E-001

1. **BOD and TSS 85% Percent Removal:** The average monthly percent removal of CBOD and TSS values, by concentration, shall not be less than 85 percent.

2. **Fecal Coliform Bacteria:** The treated wastewater shall meet the following limits of bacteriological quality:

   a. The geometric mean fecal coliform density based on a minimum of five consecutive samples collected within a 30-day period shall not exceed a most probable number (MPN) of 200 MPN/100ml; and

   b. The 90$^{th}$ percentile value of the last ten fecal coliform density values shall not exceed 400 MPN/100 ml.

3. **Enterococci Bacteria:** The monthly geometric mean enterococci bacteria density in samples of treated wastewater collected at EFF-001 shall not exceed 35 colonies/100 ml.

## D. Final Effluent Limitations for Toxic Substances

The Discharger shall maintain compliance with the following effluent limitations at Monitoring Location E-001 as described in the attached MRP (**Attachment E**):

**Table 5. Final Effluent Limitations for Toxic Substances**

| Constituent | Units | Water Quality-Based Effluent Limits (WQBELs)[1,5] | |
|---|---|---|---|
| | | Average Monthly (AMEL) | Maximum Daily (MDEL) |
| Copper[(2)] | µg/L | 69 | 110 |
| Dioxin-TEQ[(3)] | µg/L | $1.4 \times 10^{-8}$ | $2.8 \times 10^{-8}$ |
| Total Ammonia as N[(4)] | mg/L | 67 | 130 |

[(1)] a. Limitations apply to the average concentration of all samples collected during the averaging period (daily = 24-hour period; monthly = calendar month).

b. All metals limitations are expressed as total recoverable metal.

[(2)] **Alternate Effluent Limits for Copper:**

a. If a copper Site Specific Objective (SSO) for the receiving water becomes legally effective, resulting in adjusted saltwater Criterion Continuous Concentration (CCC) of 2.5 µg/l and Criterion Maximum Concentration (CMC) of 3.9 µg/l as documented in the *North of Dumbarton Bridge Copper and Nickel Site-Specific Objective (SSO) Derivation (Clean Estuary Partnership December 2004)*, upon its effective date, the following limitations shall supersede those copper limitations listed in Table 5 (the rationale for these effluent limitations can be found in the Fact Sheet [**Attachment F**]).

MDEL of 81 µg/L, and AMEL of 52 µg/L.

b. If a different copper SSO for the receiving water is adopted, the alternate WQBELs based on the SSO will be determined after the SSO effective date.

[(3)] Final effluent limits for dioxin-TEQ shall become effective on March 31, 2018.

[(4)] Compliance with the total ammonia limit shall be determined from samples of the final secondary effluent prior to disinfection.

[5] A daily maximum or average monthly value for a given constituent shall be considered noncompliant with the effluent limitations only if it exceeds the effluent limitation and the Reporting Level for that constituent. As outlined in Section 2.4.5 of the SIP, the table below indicates the Minimum Level (ML) for compliance determination purposes. In addition, in order to perform reasonable potential analysis for future permit reissuance, the Discharger shall use methods with MLs lower than the applicable water quality objectives or water quality criteria. A ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

| Constituent | Minimum Level | Units |
|---|---|---|
| Copper | 2 | µg/L |
| Cyanide | 5 | µg/L |
| Dioxin-TEQ | As specified below | |
| 2,3,7,8-TetraCDD | 5 | pg/L |
| 1,2,3,7,8-PentaCDD | 25 | pg/L |
| 1,2,3,4,7,8-HexaCDD | 25 | pg/L |
| 1,2,3,6,7,8-HexaCDD | 25 | pg/L |
| 1,2,3,7,8,9-HexaCDD | 25 | pg/L |
| 1,2,3,4,6,7,8-HeptaCDD | 25 | pg/L |
| OctaCDD | 50 | pg/L |
| 2,3,7,8-TetraCDF | 5 | pg/L |
| 1,2,3,7,8-PentaCDF | 25 | pg/L |
| 2,3,4,7,8-PentaCDF | 25 | pg/L |
| 1,2,3,4,7,8-HexaCDF | 25 | pg/L |
| 1,2,3,6,7,8-HexaCDF | 25 | pg/L |
| 1,2,3,7,8,9-HexaCDF | 25 | pg/L |
| 2,3,4,6,7,8-HexaCDF | 25 | pg/L |
| 1,2,3,4,6,7,8-HeptaCDF | 25 | pg/L |
| 1,2,3,4,7,8,9-HeptaCDF | 25 | pg/L |
| OctaCDF | 50 | pg/L |

## E. Whole Effluent Acute Toxicity

1. Representative samples of the final secondary effluent prior to disinfection shall meet the following limits for acute toxicity: Bioassays shall be conducted in compliance with Section V.A of the Monitoring and Reporting Program (MRP, **Attachment E**).

   The survival of organisms in undiluted combined effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival.

2. These acute toxicity limitations are further defined as follows:

   **11 sample median:** A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

**90th percentile**: A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or less bioassay tests show less than 70 percent survival.

3. Bioassays shall be performed using the most up-to-date USEPA protocol and the most sensitive species as specified in writing by the Executive Officer based on the most recent screening test results. Bioassays shall be conducted in compliance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms," currently 5th Edition (EPA-821-R-02-012), with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP) upon the Discharger's request with justification.

4. If the Discharger can demonstrate to the satisfaction of the Executive Officer that toxicity exceeding the levels cited above is caused by ammonia and that the ammonia in the discharge is not adversely impacting receiving water quality or beneficial uses, then such toxicity does not constitute a violation of this effluent limitation.

## F. Whole Effluent Chronic Toxicity

1. Compliance with the Basin Plan narrative chronic toxicity objective shall be demonstrated according to the following tiered requirements based on results from representative samples of the final secondary effluent prior to disinfection meeting test acceptability criteria and Section V.B of the MRP (**Attachment E**). Failure to conduct the required toxicity tests or a toxicity reduction evaluation (TRE) within a designated period shall result in the establishment of effluent limitations for chronic toxicity.

   a. Conduct routine monitoring.

   b. Accelerate monitoring after exceeding a three-sample median of 10 chronic toxicity units (TUc) or a single-sample maximum of 20 TUc, consistent with Table 4-5 of the Basin Plan for dischargers monitoring chronic toxicity quarterly. Accelerated monitoring shall consist of monthly monitoring.

   c. Return to routine monitoring if accelerated monitoring does not exceed the "trigger" in (2), above.

   d. If accelerated monitoring confirms consistent toxicity above either "trigger" in (2), above, initiate toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE) in accordance with a workplan submitted in accordance with Section V.B.3 of the MRP (Attachment E), and that incorporates any and all comments from the Executive Officer.

   e. Return to routine monitoring after appropriate elements of TRE workplan are implemented and either the toxicity drops below "trigger" levels in (2), above, or, based on the results of the TRE, the Executive Officer authorizes a return to routine monitoring.

2. Test Species and Methods

The Discharger shall conduct routine monitoring with the test species and protocols specified in Section V.B of the MRP (Attachment E). The Discharger shall also perform Chronic Toxicity Screening Phase monitoring as described in Appendix E-1 of the MRP (**Attachment E**). Chronic Toxicity Monitoring Screening Phase Requirements, Critical Life Stage Toxicity Tests and definitions of terms used in the chronic toxicity monitoring are identified in Appendices E-1 and E-2 of the MRP (**Attachment E**).

### G. Reclamation Specifications

Not Applicable.

## V. RECEIVING WATER LIMITATIONS

### A. Surface Water Limitations

1. Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharges shall not cause the following in Lower San Francisco Bay:

   a. Floating, suspended, or deposited macroscopic particulate matter or foams;

   b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil and other products of petroleum origin; or

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State within one foot of the water surface:

   a. Dissolved Oxygen: 5.0 mg/L, minimum

   The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

   b. Dissolved Sulfide: Natural background levels (0.1 mg/L, maximum)

c. pH: Within 6.5 and 8.5

d. Nutrients: Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

### B. Groundwater Limitations

Not Applicable.

## VI. PROVISIONS

### A. Standard Provisions

1. The Discharger shall comply with Standard Provisions included in **Attachment D** of this Order.

2. The Discharger shall comply with all applicable items of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993* **(Attachment G),** including any amendments thereto. Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in the Standard Provisions, the specifications of this Order shall apply. Duplicative requirements in the federal Standard Provisions in VI.A.1.2, above (**Attachment D**) and the regional Standard Provisions (**Attachment G**) are not separate requirements. A violation of a duplicative requirement does not constitute two separate violations.

### B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. The Discharger shall also comply with the requirements contained in *Self Monitoring Programs, Part A*, August 1993 (**Attachment G**).

### C. Special Provisions

#### 1. Reopener Provisions

The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law:

a. If present or future investigations demonstrate that the discharge(s) governed by this Order will or have a reasonable potential to cause or contribute to, or will cease to, have adverse impacts on water quality and/or beneficial uses of the receiving waters.

b. If new or revised WQOs, or TMDLs come into effect for the San Francisco Bay estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order will be modified as necessary to reflect updated WQOs and waste load allocations in TMDLs. Adoption of effluent limitations contained in this Order is not intended to restrict in

any way future modifications based on legally adopted WQOs, TMDLs, or as otherwise permitted under Federal regulations governing NPDES permit modifications.

c. If the mercury watershed permit has not become effective by the effective date of this order.

d. If translator or other water quality studies provide a basis for determining that a permit condition(s) should be modified.

e. If administrative or judicial decision on a separate NPDES permit or WDR that addresses requirements similar to this discharge.

f. Or as otherwise authorized by law.

The Discharger may request permit modification based on the above. The Discharger shall include in any such request an antidegradation and antibacksliding analysis.

**2. Special Studies, Technical Reports and Additional Monitoring Requirements**

**a. Effluent Characterization for Selected Constituents**

The Discharger shall continue to monitor and evaluate effluent quality at Monitoring Location E-001 for the constituents listed in Enclosure A of the Regional Water Board's August 6, 2001 Letter, according to the sampling frequency specified in the attached MRP (Attachment E). Compliance with this requirement shall be achieved in accordance with the specifications stated in the Regional Water Board's August 6, 2001 Letter under Effluent Monitoring for Major Dischargers.

The Discharger shall evaluate on an annual basis if concentrations of any constituent increase over past performance. The Discharger shall investigate the cause of the increase. The investigation may include, but need not be limited to, an increase in the effluent monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. This may be satisfied through identification of these constituents as "Pollutants of Concern" in the Discharger's Pollutant Minimization Program described in Provision C.3.b, below. A summary of the annual evaluation of data and source investigation activities shall also be reported in the annual self-monitoring report.

A final report that presents all the data shall be submitted to the Regional Water Board no later than 180 days prior to the Order expiration date. This final report shall be submitted with the application for permit reissuance.

**b. Ambient Background Receiving Water Study**

The Discharger shall collect or participate in collecting background ambient receiving water monitoring for priority pollutants that is required to perform RPA and to calculate effluent limitations. The data on the conventional water quality

parameters (pH, salinity, and hardness) shall also be sufficient to characterize these parameters in the receiving water at a point after the discharge has mixed with the receiving waters. This provision may be met through monitoring through the Collaborative Bay Area Clean Water Agencies (BACWA) Study, or a similar ambient monitoring program for San Francisco Bay. This Order may be reopened, as appropriate, to incorporate effluent limits or other requirements based on Regional Water Board review of these data.

The Discharger shall submit a final report that presents all the data to the Regional Water Board 180 days prior to Order expiration. This final report shall be submitted with the application for permit reissuance.

**c. Optional Mass Offset**

If the Discharger can demonstrate that further net reductions of the total mass loadings of 303(d)-listed pollutants to the receiving water cannot be achieved through economically feasible measures such as aggressive source control, wastewater reuse, and treatment plant optimization, but only through a mass offset program, the Discharger may submit to the Regional Water Board for approval a mass offset plan to reduce 303(d)-listed pollutants to the same watershed or drainage basin. The Regional Water Board may modify this Order to allow an approved mass offset program.

**3. Best Management Practices and Pollutant Minimization Program**

**a.** The Discharger shall continue to improve, in a manner acceptable to the Executive Officer, its existing Pollutant Minimization Program to reduce pollutant loadings to the treatment plant, and therefore, to the receiving waters.

**b.** The Discharger shall submit an annual report, acceptable to the Executive Officer, no later than February 28th of each calendar year.

The annual report shall cover January through December of the preceding year. Each annual report shall include at least the following information:

(1) *A brief description of its treatment plant, treatment plant processes and service area.*

(2) *A discussion of the current pollutants of concern.* Periodically, the Discharger shall determine which pollutants are currently a problem and/or which pollutants may be potential future problems. This discussion shall include the reasons why the pollutants were chosen.

(3) *Identification of sources for the pollutants of concern.* This discussion shall include how the Discharger intends to estimate and identify pollutant sources. The Discharger should also identify sources or potential pollutant sources not directly within the ability or authority of the Discharger to control, such as the potable water supply and air deposition.